CENTERS FOR DISEASE CONTROL

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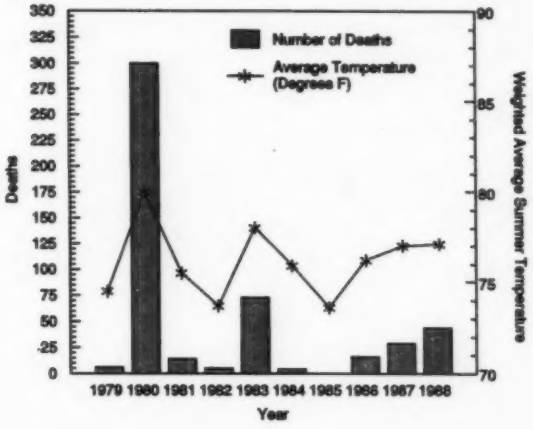
Current Trends

Heat-Related Deaths – Missouri, 1979–1988

From 1979 through 1988, 491 deaths were attributed to excessive heat exposure* in Missouri. More than half of these occurred during a 1980 heat wave (Figure 1). Although heat-related mortality is also influenced by factors such as humidity and regional acclimatization (*1*), trends for heat-related deaths in Missouri during 1979–1988 paralleled the state's average summer temperatures† (Figure 1).

*Deaths attributed to excessive heat exposure are coded E900 according to the *International Classification of Diseases, Ninth Revision.*
†Based on "State Areally Weighted Temperatures" provided by the National Climatic Data Center, National Oceanic and Atmospheric Administration.

FIGURE 1. Heat-related deaths and average summer (June–August) temperatures – Missouri, 1979–1988



Heat-Related Deaths — Continued

Persons ≥65 years of age were the most severely affected, accounting for 330 (67.2%) of the deaths (Table 1). The mortality rate for this population was 48.7 per 100,000 persons, compared with 3.8 per 100,000 for persons <65 years of age. The rate for nonwhites was substantially greater than that for whites, even after controlling for age (Table 1). For persons <65 years of age, the rate for males was twice that for females; in contrast, gender-specific rates for persons ≥65 years of age were similar (Table 1).

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Editorial Note: Growing scientific and public concern about the potential for global warming due to the "greenhouse effect" has focused attention on the health effects of heat during the summer (*2*). Heat-related mortality during July 1980 demonstrated the effect that high temperatures can have on health (*3*). Missouri, which reported >17% of the nation's 1716 heat-related deaths in 1980, maintains active surveillance of such deaths as part of a system for early detection and prevention of heat-related morbidity and mortality.

Most heat-related deaths result from heatstroke, a severe illness in which thermoregulatory failure results in core body temperatures exceeding 105 F (40.6 C). Heatstroke is a medical emergency that can develop in a few minutes or hours. Symptoms are primarily those of altered mental status and can progress from lethargy and confusion to stupor and coma as the body temperature rises; anhidrosis

TABLE 1. Heat-related deaths and incidence rates, by age, race, and sex — Missouri, 1979–1988

Characteristic	Deaths		Rate/100,000 persons
	No.	(%)	
Age			
≥65 yrs	330	(67.2)	48.7
<65 yrs	161	(32.8)	3.8
Race			
White	294	(59.9)	6.7
≥65 yrs	199	(40.5)	31.6
<65 yrs	95	(19.3)	2.6
Nonwhite	197	(40.1)	33.9
≥65 yrs	131	(26.7)	257.5
<65 yrs	66	(13.4)	12.5
Sex			
Male	233	(47.5)	9.7
≥65 yrs	126	(25.7)	47.1
<65 yrs	107	(21.8)	5.0
Female	258	(52.5)	10.0
≥65 yrs	204	(41.5)	49.7
<65 yrs	54	(11.0)	2.5

Heat-Related Deaths — Continued

may occur, but many heatstroke patients perspire profusely. Treatment includes the rapid lowering of body temperature followed by intensive supportive care. Heatstroke is often fatal (>40%), even when treatment is optimal (*4,5*).

The elderly are at greatest risk for heat-related illness, especially those who have chronic illness and/or take medications that might predispose to heatstroke. Also at increased risk are infants and children <4 years old, particularly those with congenital abnormalities of the central nervous system or with diarrheal illness; alcoholics; persons taking neuroleptic medications (antipsychotics or major tranquilizers) or anticholinergic drugs (e.g., tricyclic antidepressants, antihistamines, some antiparkinsonian agents, and over-the-counter sleeping pills); and persons who are physically or mentally impaired (*5*).

Additional risk factors include a prior history of heatstroke; certain uncommon conditions such as congenital absence of sweat glands, systemic sclerosis, and hyperthyroidism; and exercising in the heat without proper training and acclimatization. Obesity increases the risk for exercise-induced heatstroke (*5*). Although racial differences in heat-related deaths have been reported, attempts to assess the separate contributions of race and socioeconomic status to heatstroke risk have been largely unsuccessful (*3*); there is no evidence of a biologic predisposition for heat-related death associated with race.

Preventive measures include reducing physical activity, drinking extra liquids, and increasing time spent in air-conditioned places (*6*). Adequate salt intake is important; however, salt tablets are not recommended for preventing heatstroke in the general population and may be harmful to persons with certain preexisting illnesses such as hypertension and heart failure (*3,7*). At very high temperatures (high 90s and above), fans are ineffective for cooling and may increase heat stress and the risk of heatstroke (*8,9*). Therefore, persons without home air-conditioners should seek shelter in an air-conditioned environment rather than rely on the use of electric fans (*6*).

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Update: *Aedes albopictus* Infestation — United States, Mexico

Aedes albopictus, a mosquito of Asian origin, was discovered in Texas in 1985 (*1,2*). This mosquito transmits dengue virus in Asia (*3,4*) and under laboratory conditions can transmit pathogenic viruses indigenous to the United States (*5*).

Surveillance for *Ae. albopictus* in the eastern United States was initiated in 1986; by 1988, infestations had been found in 113 counties in 17 states (Figure 1, page 445) (*6–8*). In 1988, the mosquito was also found in a tire in Matamoros, Mexico. This is the southernmost identification of *Ae. albopictus* in North America; however, subsequent surveys in Matamoros have not detected further evidence of infestation. Separate infestations of *Ae. albopictus*, originating from tropical Asia, have been established in four Brazilian states (*6*).

Ae. albopictus was probably introduced into the United States in used-tire casings imported from Asia (*9*). On January 1, 1988, new regulations were implemented to control the importation of used-tire casings originating in Asian countries. These

(Continued on page 445)

TABLE I. Summary — cases of specified notifiable diseases, United States

Disease	25th Week Ending			Cumulative, 25th Week Ending		
	June 24, 1989	June 25, 1988	Median 1984-1988	June 24, 1989	June 25, 1988	Median 1984-1988
Acquired Immunodeficiency Syndrome (AIDS)	225	U*	245	16,134	14,574	5,938
Aseptic meningitis	128	160	169	2,158	2,149	2,149
Encephalitis: Primary (arthropod-borne & unspec)	12	9	21	285	342	396
Post-infectious	10	4	4	46	55	59
Gonorrhea: Civilian	12,276	12,912	16,470	309,764	317,548	381,732
Military	118	191	313	5,187	5,758	7,947
Hepatitis: Type A	583	515	422	16,372	11,748	10,576
Type B	383	553	521	10,515	10,553	11,963
Non A, Non B	54	62	71	1,127	1,274	1,717
Unspecified	72	74	74	1,231	1,011	2,257
Legionellosis	14	18	14	393	435	328
Leprosy	4	9	4	72	90	111
Malaria	18	28	19	516	351	368
Measles: Total†	484	78	135	7,022	1,492	1,750
Indigenous	467	68	99	6,679	1,327	1,496
Imported	17	10	7	343	165	198
Meningococcal infections	38	54	50	1,572	1,720	1,625
Mumps	70	72	72	2,962	2,878	2,260
Pertussis	31	36	36	1,007	1,087	964
Rubella (German measles)	5	1	13	198	116	315
Syphilis (Primary & Secondary): Civilian	645	862	546	18,852	18,145	13,282
Military	5	3	1	122	87	90
Toxic Shock syndrome	3	5	11	176	153	172
Tuberculosis	444	396	482	9,809	9,488	9,879
Tularemia	3	7	7	39	78	71
Typhoid Fever	8	9	8	204	171	144
Typhus fever, tick-borne (RMSF)	30	33	32	162	163	194
Rabies, animal	82	100	100	2,199	2,005	2,454

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1989		Cum. 1989
Anthrax	-	Leptospirosis	57
Botulism: Foodborne	6	Plague	-
Infant (Ore. 1)	7	Poliomyelitis, Paralytic	-
Other (Kentucky 1)	5	Psittacosis (Upstate NY 1)	48
Brucellosis	36	Rabies, human	1
Cholera	-	Tetanus (Fla. 1, Tenn. 1)	23
Congenital rubella syndrome	1	Trichinosis	12
Congenital syphilis, ages < 1 year	-		
Diphtheria	-		

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.
†Seven of the 484 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending June 24, 1989 and June 25, 1988 (25th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	16,134	2,158	285	46	309,764	317,548	16,372	10,515	1,127	1,231	393	72
NEW ENGLAND	691	103	7	2	8,982	9,520	358	524	46	51	28	5
Maine	33	6	3	-	132	196	7	19	3	1	3	-
N.H.	25	8	-	-	73	133	34	30	8	4	-	-
Vt.	8	6	-	-	35	74	21	39	5	-	-	-
Mass.	379	36	2	2	3,324	3,343	109	317	23	35	17	3
R.I.	37	26	-	-	621	882	23	42	3	3	6	1
Conn.	209	21	2	-	4,777	4,892	164	77	6	8	-	1
MID. ATLANTIC	4,571	248	47	5	41,761	50,637	2,073	1,849	95	162	101	9
Upstate N.Y.	550	106	14	4	7,410	5,927	488	342	43	6	32	1
N.Y. City	2,307	40	2	1	18,847	23,603	170	617	16	134	11	6
N.J.	1,105	-	31	-	6,867	7,067	215	280	11	5	18	1
Pa.	609	102	-	-	8,637	14,040	1,200	410	25	17	40	1
E.N. CENTRAL	1,328	305	82	2	54,088	49,582	882	1,246	116	42	106	2
Ohio	227	67	18	1	14,367	11,424	199	280	20	6	58	-
Ind.	226	60	20	-	4,448	3,846	70	197	17	14	18	1
Ill.	571	63	19	1	17,740	13,879	408	339	34	13	10	1
Mich.	251	105	20	-	14,947	16,101	157	335	33	9	16	-
Wis.	53	10	5	-	2,586	4,342	47	95	12	-	4	-
W.N. CENTRAL	372	93	12	2	14,421	13,025	539	447	45	12	18	1
Minn.	74	5	-	1	1,474	1,744	54	49	7	3	2	-
Iowa	32	18	3	-	1,046	977	43	22	9	-	4	-
Mo.	173	28	-	-	8,600	7,334	302	305	17	5	5	-
N. Dak.	3	4	1	-	61	86	4	15	3	-	1	-
S. Dak.	4	6	2	-	128	249	4	6	3	-	-	-
Nebr.	15	6	2	-	784	760	53	14	-	2	2	1
Kans.	71	28	4	1	2,328	1,876	79	36	6	2	4	-
S. ATLANTIC	3,404	459	40	17	86,923	89,648	1,394	2,080	159	187	61	-
Del.	48	13	1	-	1,392	1,300	21	74	2	2	4	-
Md.	324	58	9	2	9,572	9,546	331	362	17	20	12	-
D.C.	282	6	-	-	5,758	6,500	2	14	2	-	-	-
Va.	234	72	19	-	7,148	8,285	169	145	26	122	2	-
W. Va.	20	7	6	-	658	643	10	43	3	3	-	-
N.C.	278	56	1	1	13,112	12,885	236	501	49	-	15	-
S.C.	161	11	-	-	7,961	6,767	24	275	3	6	3	-
Ga.	507	41	1	-	16,586	17,411	156	212	9	6	6	-
Fla.	1,550	195	3	14	24,749	26,311	435	454	48	28	9	-
E.S. CENTRAL	382	214	15	1	25,662	24,587	203	776	67	1	17	-
Ky.	62	58	4	1	2,391	2,383	61	207	25	-	3	-
Tenn.	129	28	-	-	8,414	8,244	84	414	20	-	9	-
Ala.	111	93	11	-	8,293	7,910	37	105	39	1	5	-
Miss.	80	35	-	-	6,564	6,050	21	49	3	-	-	-
W.S. CENTRAL	1,382	225	32	2	33,832	36,362	1,883	1,014	75	288	19	13
Ark.	46	7	-	-	3,651	3,412	110	35	2	2	1	-
La.	230	18	6	-	6,977	7,456	141	181	8	1	4	-
Okla.	76	26	7	-	2,832	3,223	188	90	16	13	11	-
Tex.	1,030	174	19	2	20,372	22,271	1,424	708	49	272	3	13
MOUNTAIN	606	80	8	2	6,586	6,869	2,318	655	119	94	22	1
Mont.	9	3	-	-	96	227	25	23	2	1	2	1
Idaho	12	-	-	1	96	186	86	48	6	2	-	-
Wyo.	10	1	-	-	50	111	19	4	2	-	-	-
Colo.	169	32	2	1	1,391	1,563	305	96	40	41	2	-
N. Mex.	32	6	1	-	667	635	292	97	24	2	2	-
Ariz.	146	27	2	-	2,427	2,431	1,185	230	25	41	9	-
Utah	36	9	1	-	205	276	200	52	11	3	4	-
Nev.	92	2	2	-	1,863	1,440	206	105	9	4	3	-
PACIFIC	3,498	431	42	13	37,500	37,308	6,752	2,125	383	394	33	41
Wash.	310	-	1	1	2,889	3,198	1,567	435	111	27	8	4
Oreg.	117	-	-	-	1,442	1,492	1,190	227	42	8	1	1
Calif.	3,003	406	36	12	32,477	31,773	3,463	1,409	222	353	22	32
Alaska	5	4	4	-	449	510	429	24	5	2	1	-
Hawaii	63	21	1	-	243	337	103	30	3	4	1	4
Guam	1	-	-	-	-	73	-	-	-	-	-	-
P.R.	740	50	2	-	542	715	81	106	8	10	-	6
V.I.	22	-	-	-	330	194	-	4	-	-	-	-
Amer. Samoa	-	-	-	-	-	45	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	31	-	-	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending June 24, 1989 and June 25, 1988 (25th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1988	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	1989	Cum. 1989	Cum. 1988
UNITED STATES	516	467	6,679	17	343	1,492	1,572	70	2,962	31	1,007	1,087	5	198	116
NEW ENGLAND	31	-	205	4	20	104	111	4	28	1	216	140	-	5	1
Maine	-	-	-	-	-	7	13	-	-	-	4	11	-	-	-
N.H.	2	-	8	-	-	87	12	-	10	-	5	29	-	3	-
Vt.	1	-	1	-	-	-	6	-	-	-	6	2	-	1	-
Mass.	19	-	17	41	16	1	53	4	17	1	190	87	-	1	-
R.I.	5	-	35	-	2	-	1	-	-	-	2	2	-	-	1
Conn.	4	-	144	-	2	9	29	-	1	-	9	9	-	-	-
MID. ATLANTIC	87	11	433	8	154	487	236	4	169	-	62	49	1	10	10
Upstate N.Y.	17	1	40	-	93	16	78	4	102	-	33	31	-	2	2
N.Y. City	27	1	46	-	14	29	29	-	16	-	2	1	1	8	5
N.J.	21	-	247	-	-	14	52	-	11	-	14	4	-	-	1
Pa.	22	9	100	85	47	428	77	-	40	-	13	13	-	-	2
E.N. CENTRAL	34	101	1,042	-	42	153	191	4	240	-	36	130	-	18	22
Ohio	6	100	626	-	35	23	78	-	8	-	1	25	-	3	-
Ind.	5	-	33	-	-	44	22	-	18	-	8	50	-	-	-
Ill.	15	-	379	-	-	68	54	-	104	-	-	11	-	13	18
Mich.	6	1	4	-	5	18	30	3	86	-	20	18	-	1	4
Wis.	2	-	-	-	2	-	7	1	14	-	7	26	-	1	-
W.N. CENTRAL	16	-	427	-	4	10	45	1	343	-	22	48	-	4	-
Minn.	6	-	-	-	-	10	10	-	-	-	-	16	-	-	-
Iowa	2	-	4	-	1	-	-	-	19	-	10	14	-	-	-
Mo.	4	-	237	-	-	-	15	1	45	-	10	6	-	3	-
N. Dak.	1	-	-	-	-	-	-	-	-	-	-	6	-	-	-
S. Dak.	1	-	-	-	-	-	4	-	-	-	1	2	-	-	-
Nebr.	1	-	108	-	2	-	11	-	4	-	-	-	-	-	-
Kans.	1	-	78	-	1	-	5	-	275	-	1	4	-	1	-
S. ATLANTIC	88	12	372	-	25	240	262	17	527	3	85	109	-	7	14
Del.	1	-	58	-	1	-	2	-	1	-	1	3	-	-	-
Md.	16	-	35	-	15	7	42	11	319	1	9	17	-	2	-
D.C.	4	2	7	-	3	-	12	2	75	-	-	-	-	-	-
Va.	16	3	18	-	3	134	28	3	65	-	6	16	-	-	11
W. Va.	2	-	28	-	-	6	8	-	9	-	11	3	-	-	-
N.C.	11	-	167	-	-	1	36	1	16	-	18	32	-	1	-
S.C.	3	-	-	-	-	-	15	-	16	-	-	-	-	-	-
Ga.	6	-	-	-	-	-	52	-	7	-	10	17	-	-	-
Fla.	29	7	59	-	3	92	67	-	19	2	30	21	-	4	3
E.S. CENTRAL	6	15	103	-	-	60	48	4	98	3	38	15	-	2	-
Ky.	-	-	2	-	-	32	29	-	9	-	1	-	-	-	-
Tenn.	-	13	58	-	-	-	3	1	28	-	9	8	-	2	-
Ala.	4	2	43	-	-	-	13	3	13	3	26	5	-	-	-
Miss.	2	-	-	-	-	28	3	N	N	-	2	2	-	-	-
W.S. CENTRAL	20	53	2,716	2	38	13	104	16	1,129	16	58	65	-	12	6
Ark.	-	-	-	-	2	-	5	1	109	1	11	5	-	1	2
La.	1	-	6	-	-	-	26	12	441	-	4	9	-	5	-
Okla.	2	-	100	-	-	8	11	-	165	-	13	24	-	1	1
Tex.	17	53	2,610	215	36	5	62	3	414	15	30	27	-	5	3
MOUNTAIN	16	1	168	-	19	116	44	-	109	3	348	335	-	30	5
Mont.	1	-	12	-	1	1	1	-	2	1	10	1	-	1	-
Idaho	2	-	-	-	2	1	2	-	6	1	39	247	-	28	-
Wyo.	1	-	-	-	-	-	-	-	7	-	-	1	-	-	-
Colo.	2	-	57	-	1	114	18	-	14	-	19	13	-	-	1
N. Mex.	1	1	16	-	15	-	-	N	N	-	6	6	-	-	-
Ariz.	6	-	47	-	-	-	19	-	71	-	266	42	-	-	-
Utah	-	-	36	-	-	-	4	-	3	1	7	22	-	-	3
Nev.	3	-	-	-	-	-	-	-	4	-	1	1	-	1	1
PACIFIC	218	274	1,213	3	41	309	531	20	319	5	141	196	4	110	58
Wash.	15	-	20	-	12	2	56	4	23	2	31	42	-	-	-
Oreg.	11	-	-	11	12	3	38	N	N	-	5	6	1	2	-
Calif.	185	274	1,177	11	12	298	432	15	285	3	101	103	3	87	47
Alaska	3	-	-	-	-	-	4	-	1	-	-	4	-	-	-
Hawaii	4	-	16	15	5	6	1	1	10	-	4	41	-	21	11
Guam	-	U	-	U	-	1	-	U	-	U	-	-	U	-	1
P.R.	1	47	410	-	-	188	4	-	7	-	3	8	1	6	1
V.I.	-	-	4	-	-	-	-	1	10	-	-	-	-	-	-
Amer. Samoa	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-
C.N.M.I.	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending June 24, 1989 and June 25, 1988 (25th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	18,852	18,145	176	9,809	9,488	39	204	162	2,199
NEW ENGLAND	800	487	6	244	218	-	15	2	2
Maine	5	5	2	3	3	-	-	-	1
N.H.	3	6	-	15	6	-	-	-	-
Vt.	-	2	-	4	1	-	-	-	-
Mass.	243	197	1	125	133	-	7	-	-
R.I.	14	16	-	30	17	-	5	1	-
Conn.	535	261	3	67	58	-	3	1	1
MID. ATLANTIC	3,284	3,745	28	1,894	1,792	1	53	12	301
Upstate N.Y.	383	250	4	161	262	-	6	4	6
N.Y. City	1,551	2,408	2	1,091	886	-	35	1	-
N.J.	632	407	8	294	334	-	8	5	-
Pa.	718	680	14	348	310	1	4	2	295
E.N. CENTRAL	734	503	26	1,089	1,047	3	21	26	50
Ohio	54	52	7	204	194	-	4	12	2
Ind.	33	31	5	91	112	1	1	9	2
Ill.	358	242	5	480	438	-	12	4	10
Mich.	269	160	9	255	247	1	3	1	6
Wis.	20	18	-	59	56	1	1	-	30
W.N. CENTRAL	158	110	25	258	246	15	5	24	283
Minn.	13	8	7	53	42	-	1	-	62
Iowa	17	12	4	28	18	-	2	1	63
Mo.	82	66	4	111	121	8	1	23	22
N. Dak.	1	2	-	9	7	-	-	-	29
S. Dak.	-	-	3	13	19	4	-	-	55
Nebr.	17	17	5	10	7	-	-	-	22
Kans.	28	6	2	34	32	3	1	-	30
S. ATLANTIC	7,082	6,479	16	2,015	2,083	2	19	43	675
Del.	79	59	-	21	19	-	2	-	16
Md.	355	372	1	180	212	-	4	5	191
D.C.	431	297	1	82	84	-	2	-	2
Va.	267	213	4	172	204	2	3	3	139
W. Va.	9	7	-	38	38	-	-	-	31
N.C.	447	366	4	249	182	-	2	20	2
S.C.	387	309	3	232	232	-	-	8	115
Ga.	1,444	1,049	2	286	344	-	1	6	116
Fla.	3,663	3,805	1	755	768	-	5	1	64
E.S. CENTRAL	1,328	995	3	816	764	3	1	20	205
Ky.	28	33	1	167	198	1	1	5	93
Tenn.	603	446	1	229	193	1	-	13	55
Ala.	415	281	1	236	242	-	-	2	57
Miss.	282	235	-	164	131	1	-	-	-
W.S. CENTRAL	2,638	2,056	13	1,155	1,190	10	7	21	345
Ark.	108	111	1	125	129	5	-	4	45
La.	604	399	-	137	159	-	1	-	3
Okla.	42	79	7	90	107	5	1	16	52
Tex.	1,822	1,467	5	794	795	-	5	1	245
MOUNTAIN	341	351	22	225	243	3	3	12	107
Mont.	1	2	-	8	5	-	-	9	43
Idaho	1	-	2	8	-	-	-	-	-
Wyo.	4	1	1	-	1	-	-	1	31
Colo.	51	48	4	12	39	1	1	2	3
N. Mex.	12	25	2	40	48	-	-	-	15
Ariz.	86	86	9	112	116	-	1	-	13
Utah	11	10	3	21	10	2	1	-	1
Nev.	183	177	1	24	24	-	-	-	1
PACIFIC	2,489	3,419	37	2,113	1,905	2	80	2	231
Wash.	136	107	2	110	111	-	4	-	-
Oreg.	131	140	-	68	69	-	4	1	-
Calif.	2,213	3,146	34	1,837	1,630	2	70	1	171
Alaska	3	7	-	19	20	-	-	-	60
Hawaii	6	19	1	79	75	-	2	-	-
Guam	-	3	-	-	9	-	-	-	-
P.R.	264	316	-	151	100	-	-	-	31
V.I.	2	1	-	4	3	-	-	-	-
Amer. Samoa	-	-	-	-	3	-	-	-	-
C.N.M.I.	-	1	-	-	13	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending June 24, 1989 (25th Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	>65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	604	404	125	39	18	18	60
Boston, Mass.	201	118	45	17	12	9	33
Bridgeport, Conn.	32	23	6	2	1	-	1
Cambridge, Mass.	23	19	4	-	-	-	2
Fall River, Mass.	25	21	3	1	-	-	2
Hartford, Conn.	61	40	13	2	1	5	5
Lowell, Mass.	22	16	3	2	1	-	1
Lynn, Mass.	16	11	4	1	-	-	1
New Bedford, Mass.	17	11	5	1	-	-	1
New Haven, Conn.	31	16	10	3	2	-	2
Providence, R.I.	37	24	9	2	1	1	1
Somerville, Mass.	5	5	-	-	-	-	-
Springfield, Mass.§	43	30	9	2	-	2	4
Waterbury, Conn.	32	25	4	3	-	-	4
Worcester, Mass.	59	45	10	3	-	1	3
MID. ATLANTIC	2,406	1,558	474	313	51	69	143
Albany, N.Y.	45	30	8	5	-	2	1
Allentown, Pa.	21	14	2	4	1	-	-
Buffalo, N.Y.	100	75	15	4	2	4	6
Camden, N.J.	32	20	6	3	1	1	-
Elizabeth, N.J.	19	13	5	1	-	-	2
Erie, Pa.†	42	27	12	2	-	1	5
Jersey City, N.J.	42	30	1	9	1	1	1
N.Y. City, N.Y.	1,313	786	261	205	33	29	59
Newark, N.J.	59	22	14	20	2	1	6
Paterson, N.J.	22	12	5	3	-	2	1
Philadelphia, Pa.	339	211	76	33	9	10	20
Pittsburgh, Pa.†	66	37	17	4	-	8	10
Reading, Pa.	30	27	2	1	-	-	2
Rochester, N.Y.	111	83	21	2	1	4	12
Schenectady, N.Y.	25	24	1	-	-	-	1
Scranton, Pa.†	26	22	2	2	-	-	5
Syracuse, N.Y.	83	64	9	5	1	4	2
Trenton, N.J.	29	18	3	6	-	2	3
Utica, N.Y.	29	21	6	2	-	-	1
Yonkers, N.Y.	33	23	8	2	-	-	6
E.N. CENTRAL	2,164	1,389	451	183	80	79	90
Akron, Ohio	53	38	10	2	2	1	-
Canton, Ohio	25	20	5	-	-	-	2
Chicago, Ill.§	564	362	125	46	10	22	16
Cincinnati, Ohio	116	77	20	11	6	2	6
Cleveland, Ohio	140	84	30	6	7	13	5
Columbus, Ohio	122	79	23	11	4	3	4
Dayton, Ohio	97	65	24	6	1	1	13
Detroit, Mich.	217	108	59	28	14	8	2
Evansville, Ind.	39	28	7	2	2	-	2
Fort Wayne, Ind.	61	39	12	7	1	2	1
Gary, Ind.	22	12	6	4	-	-	2
Grand Rapids, Mich.	67	45	12	4	3	3	10
Indianapolis, Ind.	199	120	43	24	3	9	4
Madison, Wis.§	36	24	6	4	1	1	3
Milwaukee, Wis.	131	96	19	9	1	6	3
Peoria, Ill.	46	30	11	1	-	3	3
Rockford, Ill.	42	29	5	3	3	2	1
South Bend, Ind.	40	30	7	1	1	1	3
Toledo, Ohio	93	62	20	8	1	2	8
Youngstown, Ohio	55	41	7	7	-	-	2
W.N. CENTRAL	696	483	117	38	26	21	32
Des Moines, Iowa	67	43	17	4	1	2	6
Duluth, Minn.	16	14	1	-	-	-	2
Kansas City, Kans.	43	28	9	3	2	1	-
Kansas City, Mo.	104	66	26	9	2	1	4
Lincoln, Nebr.	22	19	2	1	-	-	-
Minneapolis, Minn.	96	71	17	1	6	-	6
Omaha, Nebr.	83	53	15	7	1	7	7
St. Louis, Mo.	167	120	19	11	12	5	5
St. Paul, Minn.	46	39	3	-	2	3	1
Wichita, Kans.	53	41	8	2	-	2	1

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	>65	45-64	25-44	1-24	<1	Total
S. ATLANTIC	1,133	662	247	130	30	44	53
Atlanta, Ga.	169	89	43	25	6	6	8
Baltimore, Md.	75	49	16	9	-	1	4
Charlotte, N.C.	76	45	21	6	1	3	9
Jacksonville, Fla.	101	66	23	7	4	1	4
Miami, Fla.	131	80	18	18	6	9	1
Norfolk, Va.	59	32	18	4	-	5	1
Richmond, Va.	69	35	16	12	4	2	5
Savannah, Ga.	58	40	9	6	1	2	3
St. Petersburg, Fla.	79	56	11	7	2	3	6
Tampa, Fla.	96	60	23	6	1	6	9
Washington, D.C.	197	111	45	30	5	6	3
Wilmington, Del.	23	19	4	-	-	-	-
E.S. CENTRAL	771	509	158	64	21	19	50
Birmingham, Ala.	137	79	31	10	10	7	2
Chattanooga, Tenn.	78	55	17	4	1	1	3
Knoxville, Tenn.	93	73	7	7	1	5	13
Louisville, Ky.	72	49	13	7	3	-	4
Memphis, Tenn.	200	125	50	19	3	3	20
Mobile, Ala.	60	39	13	5	2	1	1
Montgomery, Ala.	39	28	5	4	-	2	-
Nashville, Tenn.	92	61	22	8	1	-	7
W.S. CENTRAL	1,652	1,026	347	161	62	55	60
Austin, Tex.	62	42	6	8	5	1	3
Baton Rouge, La.	22	15	5	2	-	-	-
Corpus Christi, Tex.§	45	35	8	2	-	-	1
Dallas, Tex.§	187	106	42	21	10	8	4
El Paso, Tex.	53	32	12	2	4	3	1
Fort Worth, Tex	98	53	21	6	4	14	6
Houston, Tex.§	734	436	169	89	24	16	18
Little Rock, Ark.	58	37	13	5	1	2	3
New Orleans, La.	71	44	14	9	1	3	-
San Antonio, Tex.	166	125	32	15	10	6	9
Shreveport, La.	38	28	6	1	2	1	6
Tulsa, Okla.	96	73	19	1	1	1	9
MOUNTAIN	731	488	130	64	23	26	35
Albuquerque, N. Mex.	79	56	5	3	3	2	4
Colo. Springs, Colo.	41	26	8	3	1	3	5
Denver, Colo.	134	78	25	19	3	10	2
Las Vegas, Nev.	109	65	33	7	2	2	10
Ogden, Utah	29	22	6	-	1	-	1
Phoenix, Ariz.	151	95	29	21	4	2	3
Pueblo, Colo.	34	23	7	3	-	1	1
Salt Lake City, Utah	46	26	7	5	5	3	4
Tucson, Ariz.	108	87	10	4	4	3	5
PACIFIC	1,970	1,239	366	221	75	59	130
Berkeley, Calif.	20	9	7	2	-	2	1
Fresno, Calif.	74	45	12	3	5	9	8
Glendale, Calif.	29	25	2	2	-	-	-
Honolulu, Hawaii	73	55	13	2	3	-	9
Long Beach, Calif.	74	49	14	6	4	1	10
Los Angeles Calif.	639	363	125	92	33	16	27
Oakland, Calif.	61	39	12	7	-	3	1
Pasadena, Calif.	31	23	2	3	2	1	3
Portland, Oreg.	130	98	20	11	-	1	7
Sacramento, Calif.	140	88	28	16	6	2	15
San Diego, Calif.	148	93	23	22	6	4	19
San Francisco, Calif.§	154	91	29	25	3	6	6
San Jose, Calif.	159	108	23	12	7	9	11
Seattle, Wash.	148	87	40	10	6	5	3
Spokane, Wash.	53	36	10	7	-	-	5
Tacoma, Wash.	37	30	6	1	-	-	5
TOTAL	12,186††	7,788	2,415	1,213	366	390	653

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§Data not available. Figures are estimates based on average of past available 4 weeks.

Aedes albopictus *Infestation — Continued*

regulations require that used-tire casings be clean and dry and be treated by one of three approved fumigation procedures. During 1988, 34 (0.5%) of 6533 casings examined in U.S. ports contained water—a 98% reduction from levels found in earlier surveys (*9*). During 1988, no viruses were isolated from 10,679 *Ae. albopictus* specimens from Indiana, Illinois, Tennessee, and Louisiana.

Reported by: State and local health and vector-control agencies in Alabama, Arkansas, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. KJ Tennessen, Tennessee Valley Authority, Muscle Shoals, Alabama. TW Walker, Aberdeen Proving Ground, Maryland. J Sepulveda-Amor, MD, Dirección General de Epidemiologia, J Fernandez de Castro, MD, Dirección General de Medicina Preventiva, Secretaría de Salubridad, Mexico City, Mexico. Div of Quarantine, Center for Prevention Svcs; Div of Vector-Borne Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The public health importance of the introduction and infestation of *Ae. albopictus* in the United States remains undetermined. The potential for *Ae. albopictus* to transmit certain pathogenic arboviruses indigenous to the United States has been proven in laboratory experiments (*5*); however, disease transmission by this mosquito in natural settings has not been documented. La Crosse virus, a leading cause of childhood encephalitis in the upper and midwestern United States, is usually restricted to rural areas by the behavior of its principal vector mosquito, although the virus could extend to urban centers if carried by *Ae. albopictus*. La Crosse virus has not been isolated from *Ae. albopictus*, and no case of encephalitis has been epidemiologically attributed to this mosquito.

The potential for dengue virus transmission in the United States by *Ae. albopictus* is of particular concern. The principal vector of dengue virus, *Ae. aegypti*, is prevalent throughout the Southeast but cannot overwinter in northern states. However, because *Ae. albopictus* can overwinter as far north as latitude 42 N and in summer can extend even farther north, the risk for epidemic dengue in the United States is heightened.

FIGURE 1. Areas of *Aedes albopictus* infestation — United States, 1988

Aedes albopictus Infestation — Continued

In suburban areas of New Orleans with abundant vegetation, *Ae. albopictus* has replaced *Ae. aegypti* and has become the principal source of mosquito complaints to the health department. *Ae. aegypti* remains dominant in urban areas where housing density is high and vegetation is sparse.

Although *Ae. albopictus* now is entrenched in the United States, continued monitoring of imported used-tire casings is needed to prevent further introductions of this mosquito and to prevent the introduction of other exotic mosquito species and Asian arboviruses (*9*). Spot surveys support the effectiveness of the new regulations regarding the importation of tires from Asia.

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Notices to Readers

Publication of *MMWR Recommendations and Reports* on HIV and Hepatitis B Virus in Health-Care and Public-Safety Workers

A new *MMWR Recommendations and Reports*, "Guidelines for Prevention of Transmission of Human Immunodeficiency Virus and Hepatitis B Virus to Health-Care and Public-Safety Workers," was published June 23, 1989 (*1*). This document provides an overview of the modes of transmission of human immunodeficiency virus and hepatitis B virus in the workplace, an assessment of the risk for transmission under various assumptions, principles underlying the control of risk, and specific risk-control recommendations for employers and workers. This document also includes information on medical management of persons who have sustained an exposure at the workplace to these viruses (e.g., an emergency medical technician who incurs a needlestick injury while performing professional duties). These guidelines are intended for use by a technically informed audience. A separate model curriculum based on the principles and practices discussed in this document is being developed for use in training workers.

Reference

1. CDC. Guidelines for prevention of transmission of human immunodeficiency virus and hepatitis B virus to health-care and public-safety workers. MMWR 1989;38(no. S-6).

MMWR Serial Publications, Vol. 38, 1989

The following documents have been published as part of *MMWR* Vol. 38. For information regarding purchase of these documents, contact the U.S. Government Printing Office (telephone [202] 783-3238) or MMS Publications (telephone [617] 893-3800). For additional questions, contact Editorial Services, Epidemiology Program Office, CDC (telephone [404] 332-4555).

Supplements:

Chronic Disease Reports in the *Morbidity and Mortality Weekly Report (MMWR)* (Vol. 38, No. S-1, February 3, 1989).

The Surgeon General's 1989 Report on Reducing the Health Consequences of Smoking: 25 Years of Progress—Executive Summary (Vol. 38, No. S-2, March 24, 1989).

A Strategic Plan for the Elimination of Tuberculosis in the United States (Vol. 38, No. S-3, April 21, 1989).

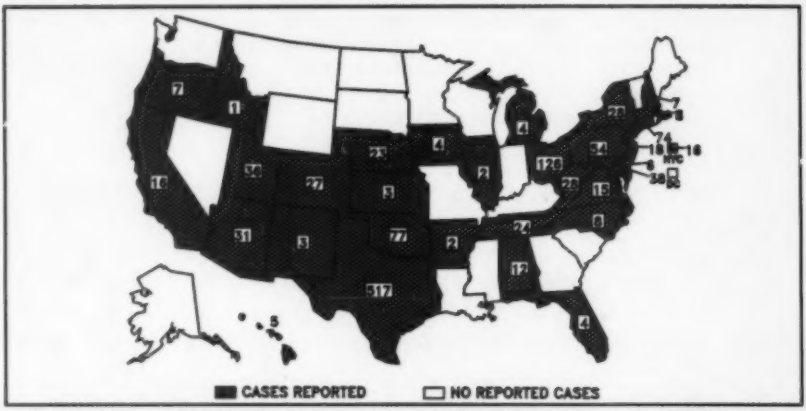
AIDS and Human Immunodeficiency Virus Infection in the United States: 1988 Update (Vol. 38, No. S-4, May 12, 1989).

Recommendations and Reports:

Guidelines for Prophylaxis Against *Pneumocystis carinii* Pneumonia for Persons Infected with Human Immunodeficiency Virus (Vol. 38, No. S-5, June 16, 1989).

Guidelines for Prevention of Transmission of Human Immunodeficiency Virus and Hepatitis B Virus to Health-Care and Public-Safety Workers (Vol. 38, No. S-6, June 23, 1989).

FIGURE I. Reported measles cases — United States, weeks 21–24, 1989



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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333; telephone (404) 332-4555.

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